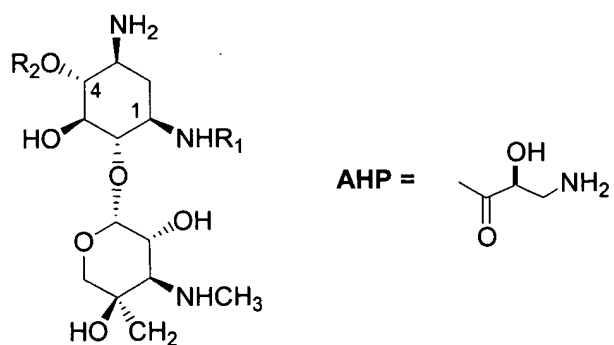


TITLE: New Aminoglycoside Antibiotics as Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US



Gentamicin-Based

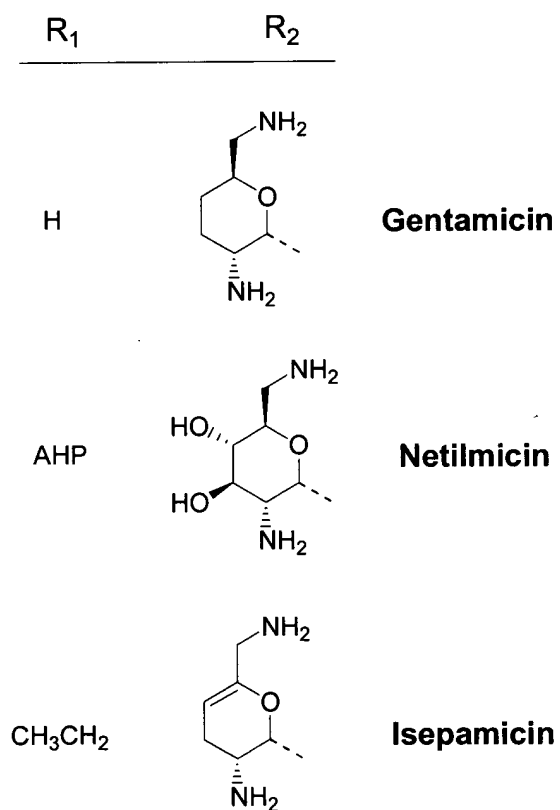
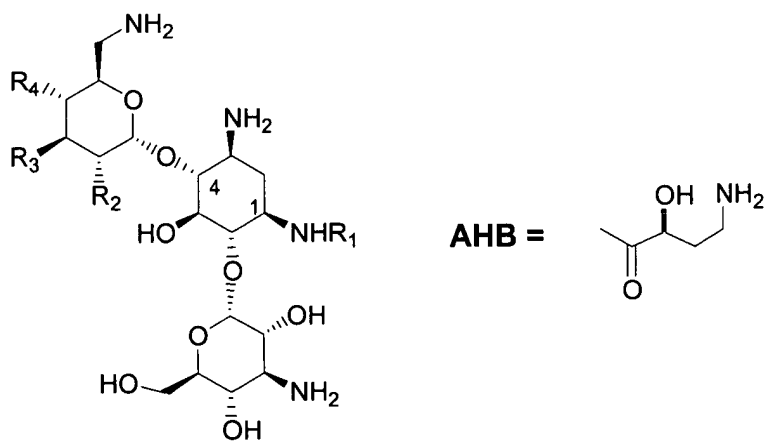


FIGURE 1

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

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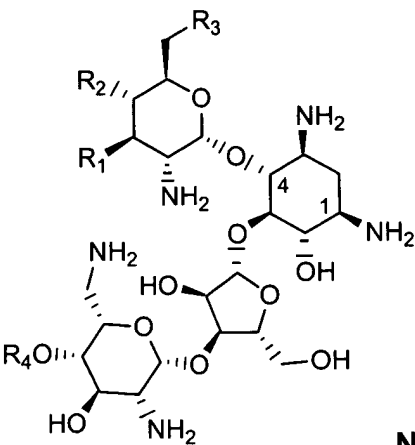


Kanamycin-Based

R ₁	R ₂	R ₃	R ₄	
AHB	OH	OH	OH	Amikacin
H	NH ₂	OH	OH	Dibekacin
AHB	NH ₂	H	H	Arbekacin
H	NH ₂	H	OH	Tobramycin

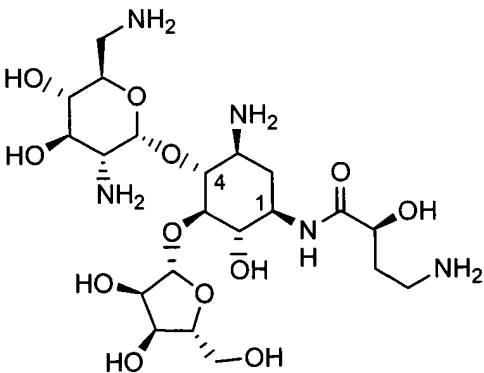
FIGURE 2

TITLE: New Aminoglycoside Antibiotics as
 Novel Anti-Infective Agents
APPLICANTS: Chang-Hsing Liang, et al.
DOCKET: 8024-004-US



Neomycin-Based

	R ₁	R ₂	R ₃	R ₄
Neomycin	OH	OH	NH ₂	H
Paromomycin	OH	OH	OH	H
Lividomycin	H	OH	NH ₂	Mannopyranose



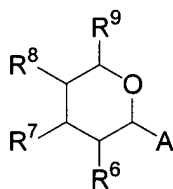
Butirosin

FIGURE 3

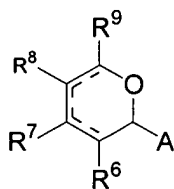
TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

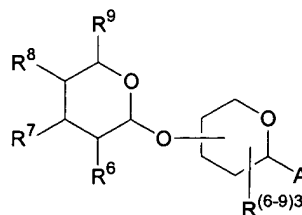
DOCKET: 8024-004-US



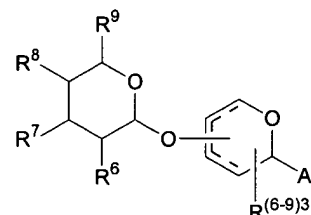
(IIa)



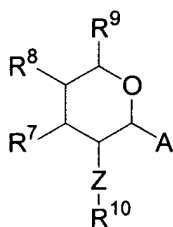
(IIIa)



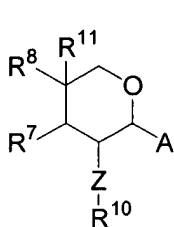
(IIa-1)



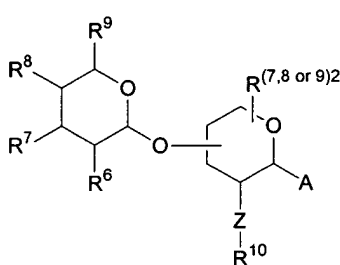
(IIIa-1)



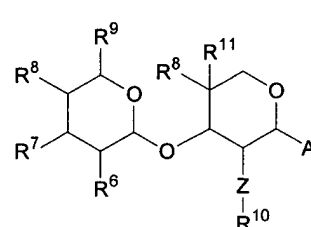
(IVa)



(Va)



(IVa-1)



(Va-1)

--- represents a double bond
at either C2-C3, C3-C4
or C4-C5

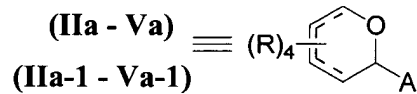
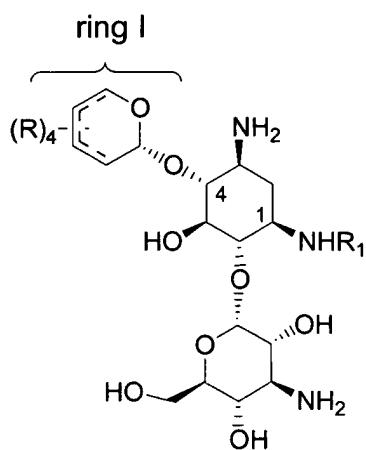
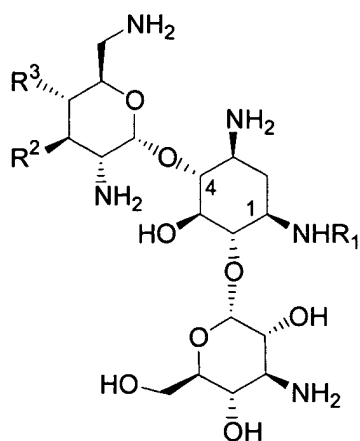


FIGURE 4

TITLE: New Aminoglycoside Antibiotics as
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APPLICANTS: Chang-Hsing Liang, et al.

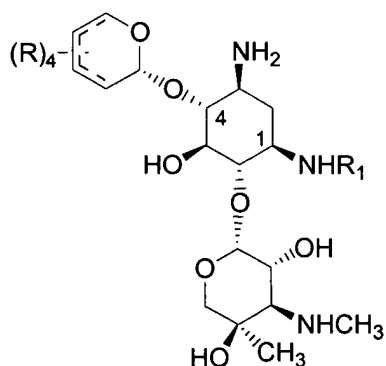
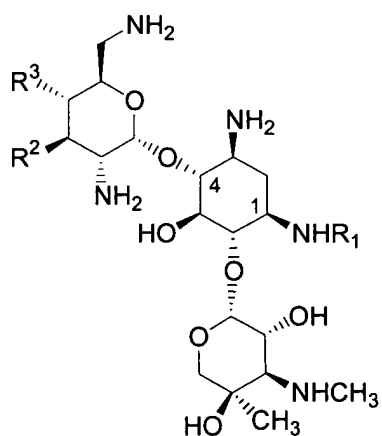
DOCKET: 8024-004-US



"Ring I" Substituted

R_1	R_2	R_3	
AHB	H	H	Arbekacin
H	H	OH	Tobramycin

R_1
AHB
H



"Ring I" Substituted

R_1	R_2	R_3	
H	H	H	Gentimicin
AHP	H	H	Netilmicin

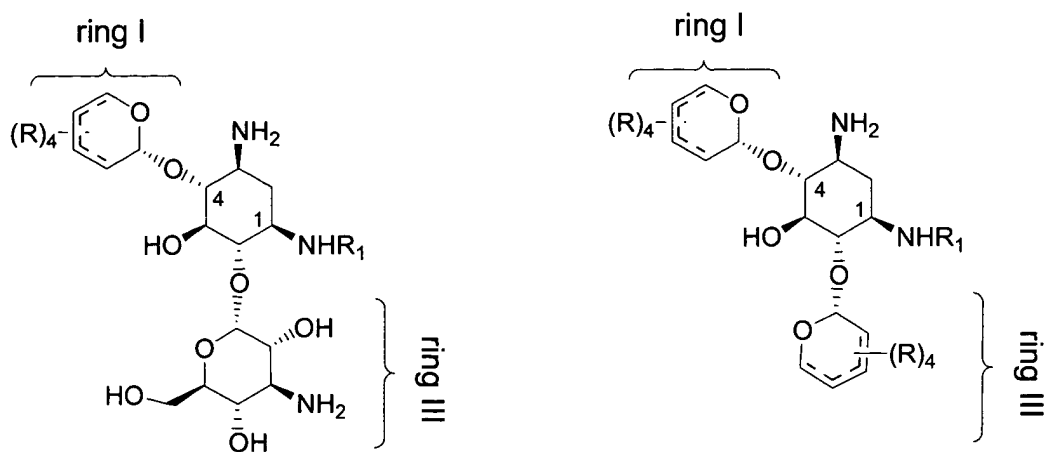
R_1
H
APH

FIGURE 5

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US



"Ring I" Substituted

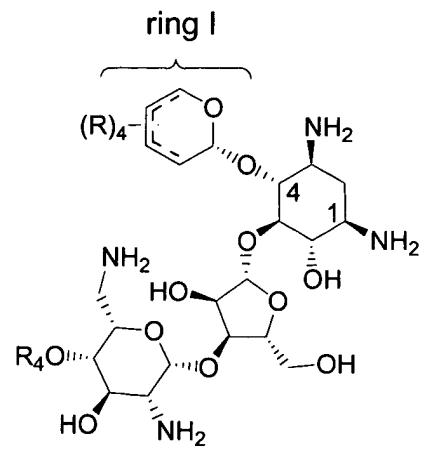
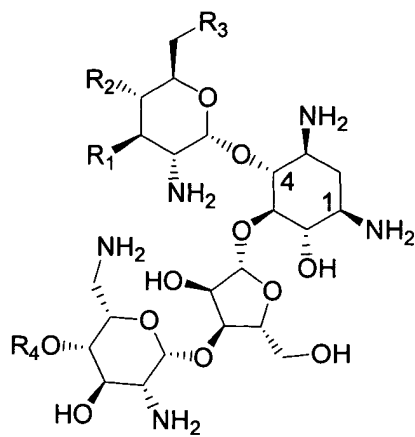
R ₁
AHB
AHP
Ethyl
H

**"Ring I and Ring III"
Substituted**

R ₁
AHB
AHP
Ethyl
H

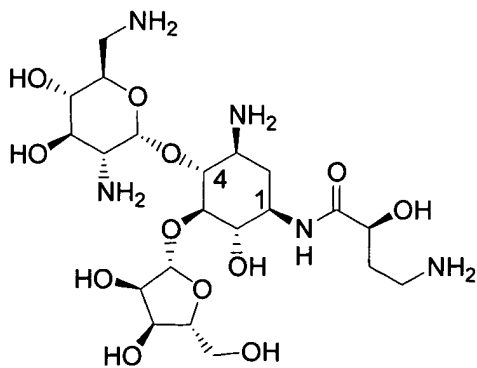
FIGURE 6

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents
APPLICANTS: Chang-Hsing Liang, et al.
DOCKET: 8024-004-US

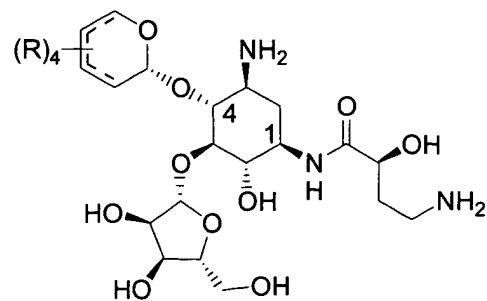


"Ring I" Substituted

R ₁	R ₂	R ₃	R ₄		R ₄
OH	OH	NH ₂	H	Neomycin	H
OH	OH	OH	H	Paromomycin	H
H	OH	NH ₂	Manno-pyranose	Lividomycin	Manno-pyranose



Butirosin



"Ring I" Substituted

FIGURE 7

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

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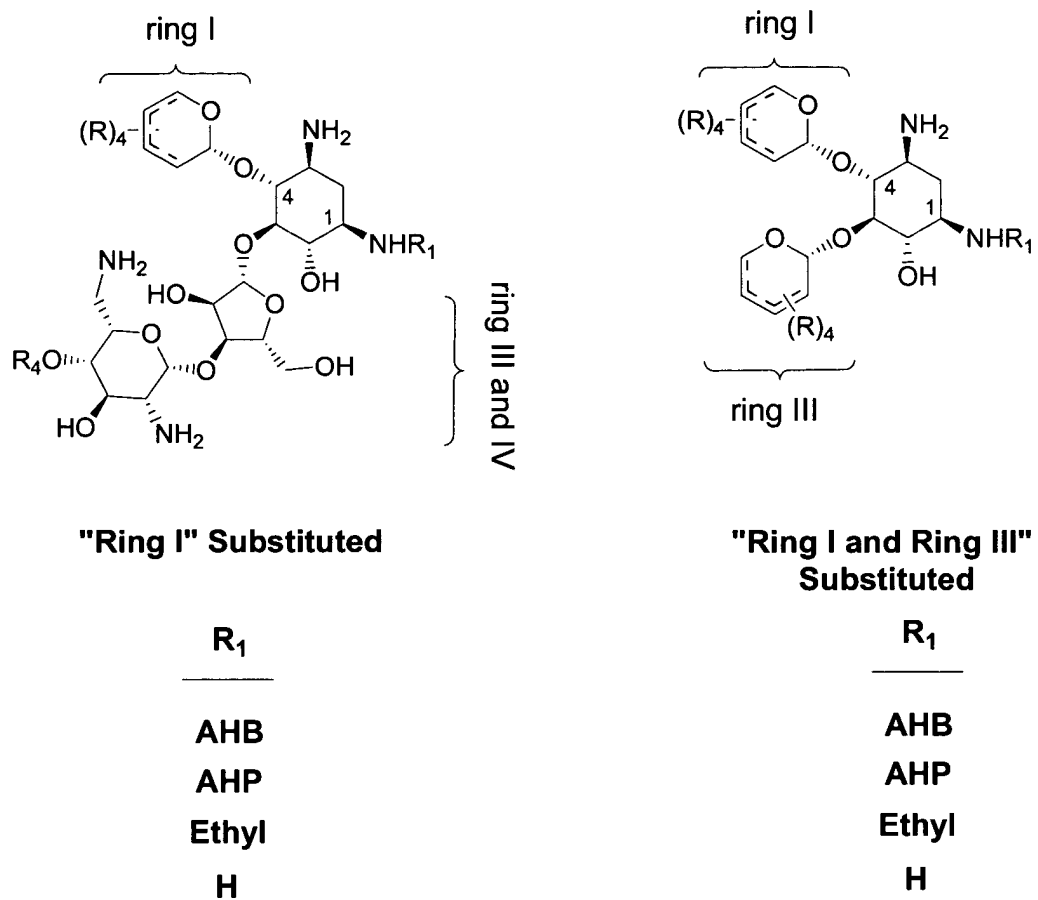
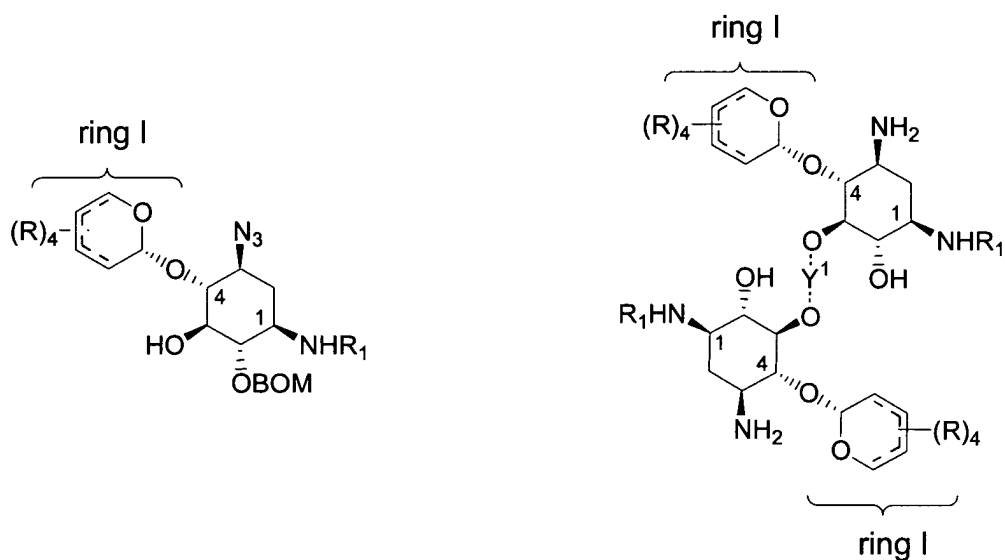


FIGURE 8

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US



"Ring I" Substituted

R ₁
AHB
AHP
Ethyl
H

4,5-Substituted

R ₁
AHB
AHP
Ethyl
H

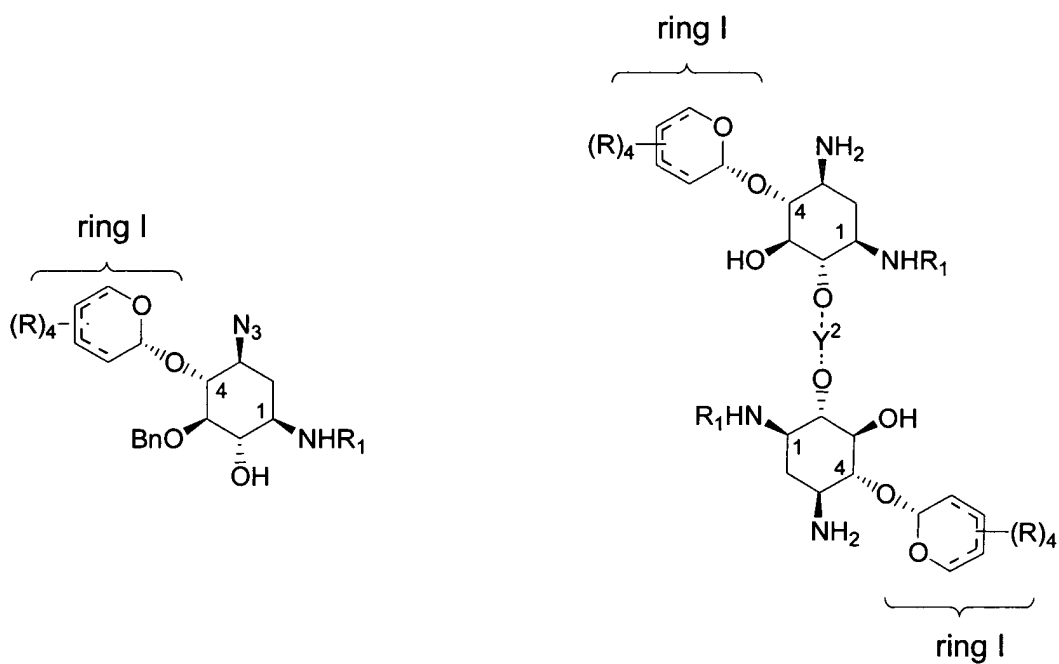
Y¹ = divalent linking group

FIGURE 9

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US



"Ring I" Substituted

R ₁
AHB
AHP
Ethyl
H

4,6-Substituted

R ₁
AHB
AHP
Ethyl
H

Y² = divalent linking group

FIGURE 10

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US

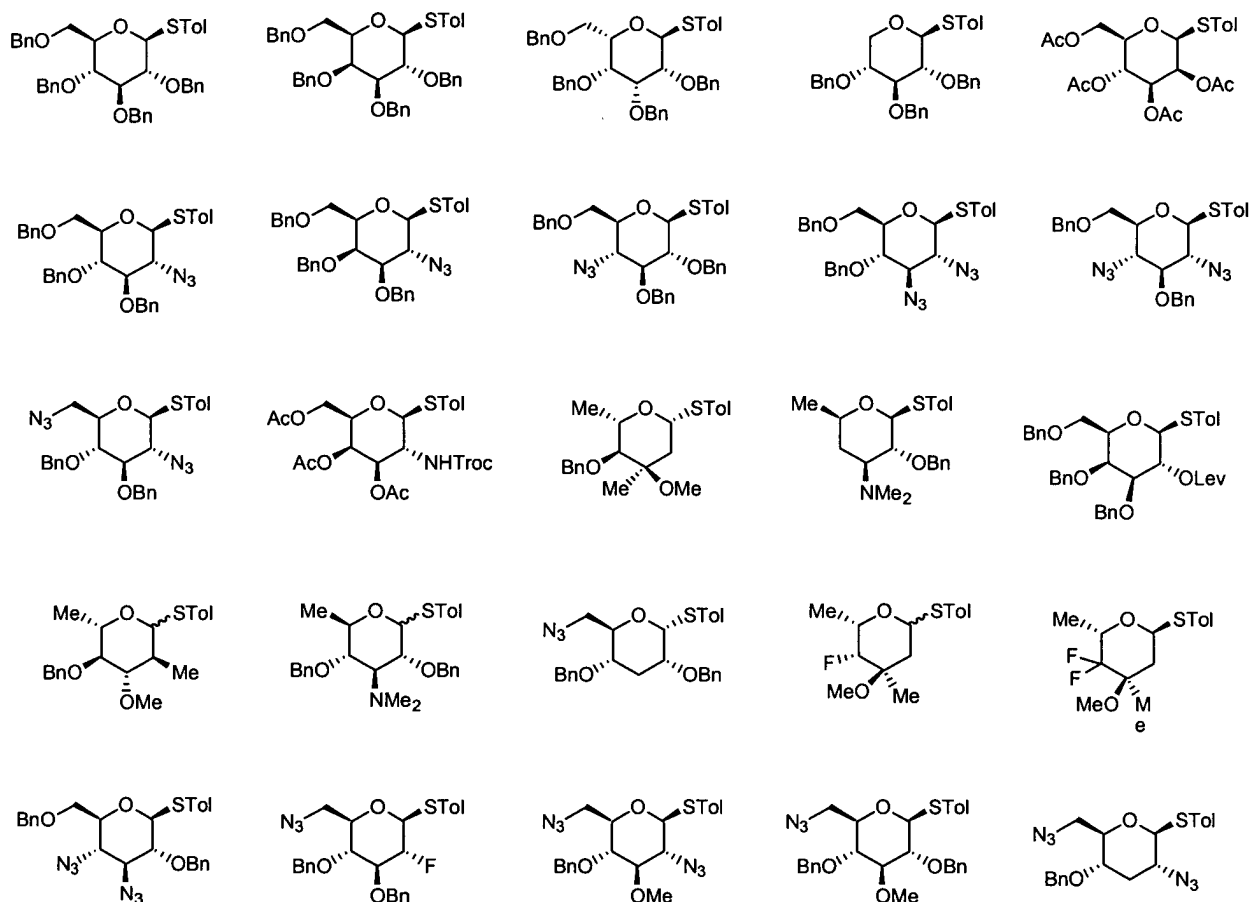


FIGURE 11

TITLE: New Aminoglycoside Antibiotics as
Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US

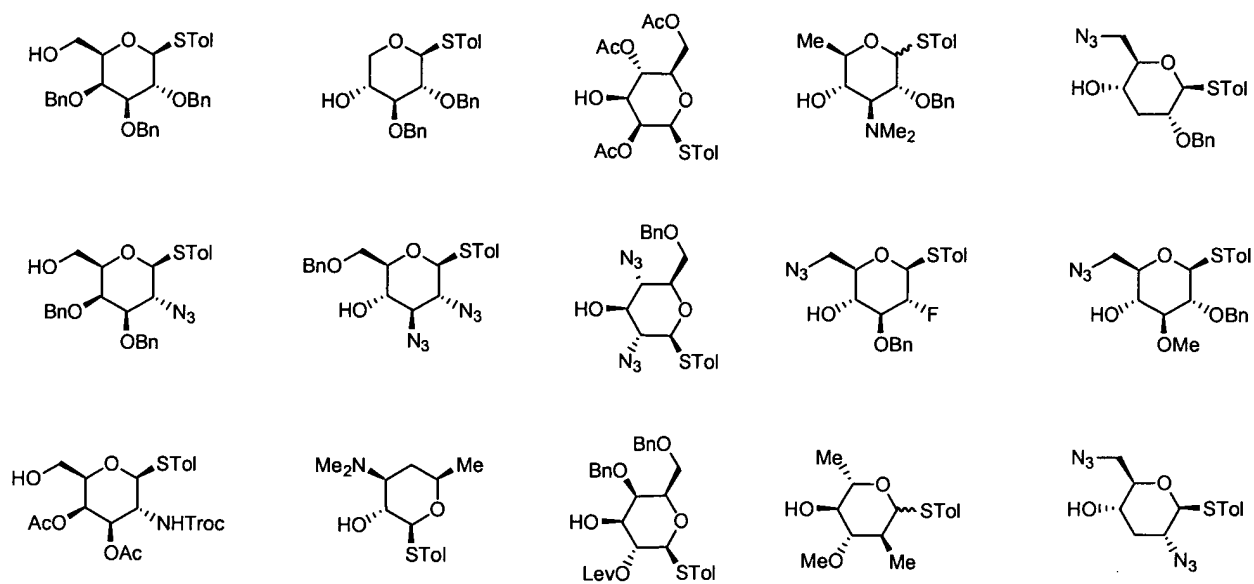


FIGURE 12

TITLE: New Aminoglycoside Antibiotics as Novel Anti-Infective Agents

APPLICANTS: Chang-Hsing Liang, et al.

DOCKET: 8024-004-US

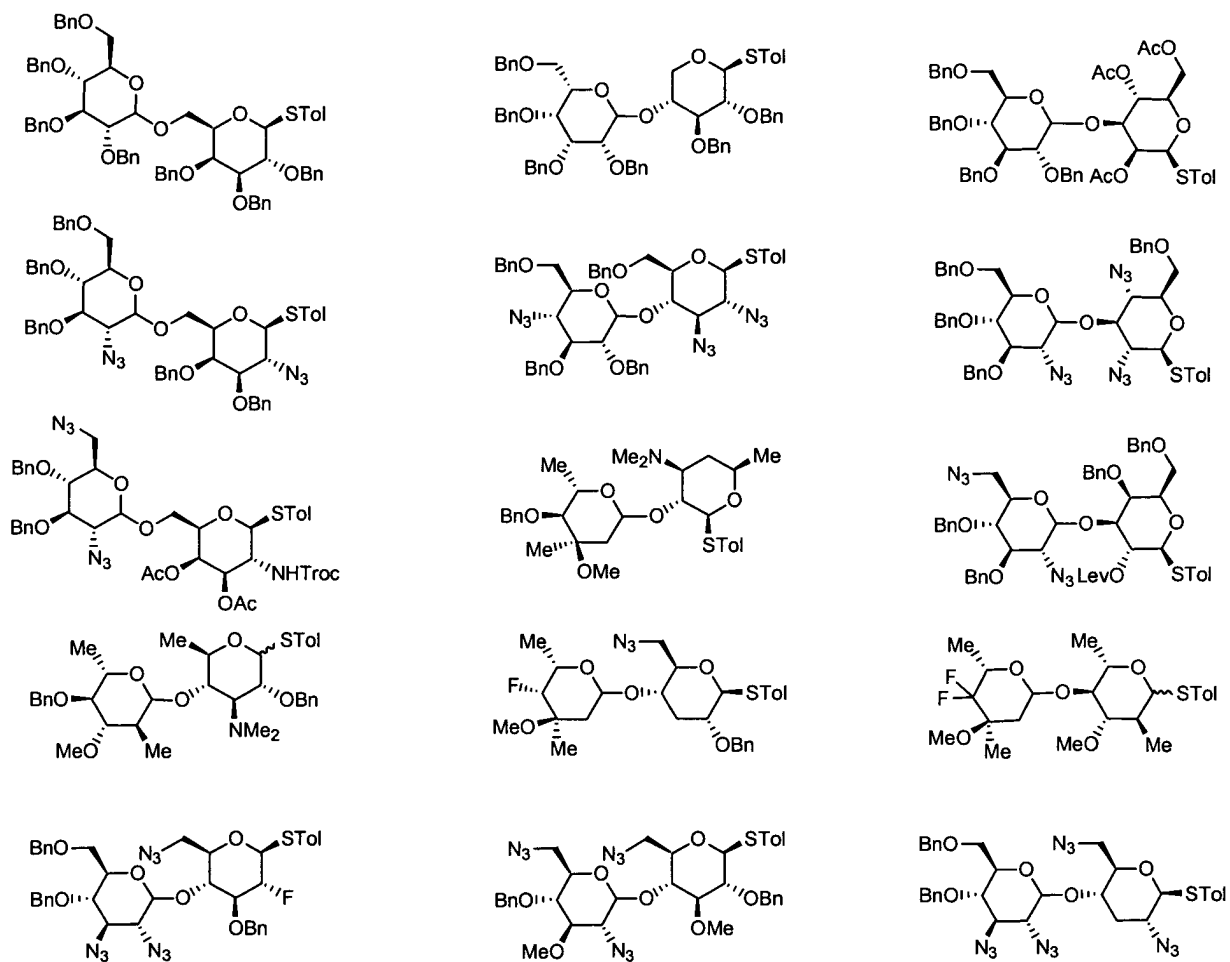


FIGURE 13